

Workshop on Laboratory Spectroscopy Needs for Atmospheric Sensing

San Diego, California, USA

23-26 October 2001

Remote sensing and *in situ* measurements play critical roles in developing an understanding of the chemistry and physics of the Earth's atmosphere and of its susceptibility to change as a result of natural and anthropogenic forcings. Improvements in laboratory spectroscopic measurements are required to meet the needs of these endeavors, particularly in light of the increasing demands of current sensing technology and of the increased accuracy and precision required to address current atmospheric science issues. Nevertheless, the laboratory spectroscopy needs for atmospheric sensing have not been assessed since the early preparations for the UARS (Upper Atmosphere Research Satellite) observatory. Thus, a workshop is being conducted to assess in detail the state of spectroscopic parameters available for addressing present and future atmospheric sensing needs. The workshop will also focus on the state of laboratory spectroscopic measurement capabilities in providing the needed parameters.

The workshop will be held from 23-26 October 2001 in San Diego, California and will provide a forum for informational exchange between the international laboratory spectroscopy and field measurement (user) communities. Through a series of sessions structured around plenary talks, posters, and focused discussions, the workshop will:

- identify current and future spectroscopic needs for existing and planned atmospheric sensing technologies;
- review the status of current spectroscopic parameters for important atmospheric species;
- assess the state of current and near-term laboratory capabilities to yield the new, more accurate, and more precise parameters that are needed; and
- prioritize the needs stemming from the above considerations.

The workshop will be organized into sessions focusing on the various spectral regions (microwave, far IR, mid- and near IR, and UV/Visible), as well as aerosols. Each session will be introduced by one or two plenary talks addressing field measurement capabilities and needs and laboratory measurement achievements and capabilities, followed by a discussion period. In addition, all attendees are strongly encouraged to present posters highlighting their current research activities. Since the posters will be displayed for the entire week, they can be referred to during the discussion periods following each session's oral presentations. Hence, attendees are also encouraged to bring one or two overhead transparencies of their research to aid a comprehensive discussion. Each invited speaker will be requested to provide an abstract outlining the current status, important gaps, and future needs with respect to the particular issue being addressed. Poster presenters are similarly requested to provide a short (half-page) abstract of their poster. These abstracts will be provided to the attendees at the meeting.

The scientific sessions will run from Tuesday morning, 23 October through midday on Friday, 26 October. Ample time and opportunity will be provided for informal discussions or ad-hoc working group meetings. While the workshop will be centered around the plenary discussions, its success will rely overwhelmingly on the active participation of the attendees. Rapporteurs for each session will be appointed in advance. Each rapporteur will be tasked with summarizing their session's key points and recommendations during the wrap-up session on Friday morning. Rapporteurs will work with the session chairs and other attendees to prepare a two- or three-page written summary for each session. These summaries will form the basis for a workshop report that will be distributed among the international community.

The workshop will be held at the Handlery Hotel in San Diego, California. In addition, a block of sleeping rooms has been established for the meeting participants. The rate for a room (single, double, triple, or quad) is \$99.00 per night plus any applicable taxes. Please note that each attendee will be responsible for making his/her own hotel reservations. Attendees can make reservations through the Handlery's group reservation department ((+1.)619.298.0511 or 1.800.676.6567). The reservation department is open Monday through Friday, from 8:00a to 5:00p Pacific Time. Callers must refer to the "NASA Spectroscopy Workshop" group to book the special rates and to be included in the group room block. **The reservation cut-off date is 21 September 2001.** Any reservation requests received after that date will be accepted on a space-available basis and subject to available rates. Each reservation must be guaranteed by credit card or by an advance deposit of the first night's room and tax. Individual reservations cancelled less than 24 hours before the check-in date will be charged one night's room and tax. No-show reservations will be cancelled and charged room and tax for the entire length of the reservation. A \$35.00 fee, which will be billed to the individual's method of guarantee, will be charged for any change resulting in an early departure date after check-in.

There will be a registration reception on Monday evening to allow attendees to register, meet other participants, and set up their posters.

Both space and the nature of the workshop limit the attendance to approximately 70. Therefore, we may not be able to accommodate everyone who expresses an interest in attending the workshop, and may limit attendance to one or two individuals from each laboratory or field measurement group. If you wish to attend, please complete the accompanying registration form and e-mail or fax it to Rose Kendall (rose@ember.gsfc.nasa.gov or +1-301-794-9480) no later than 31 July 2001. A registration fee will be charged to defray the cost of some of the organizational expenses. This fee, in the amount of \$75, is due when you register at the workshop. The registration fee will be applied to the various costs of the meeting: facility use, equipment rental, documents, and supplies.

Please note the following dates associated with the workshop:

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| Return registration form to Rose Kendall | 31 July 2001 |
| Notification of acceptance for attendees and posters | 10 August 2001 |
| Submit abstract to Rose Kendall | 31 August 2001 |
| Draft agenda distributed to attendees | 21 September 2001 |
| Deadline for making hotel reservations at Handlery Hotel | 21 September 2001 |

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Registration Form

Please return no later than 31 July 2001 to Rose Kendall (rose@ember.gsfc.nasa.gov or (+1.)301.794.9480).

Full Name (specify Dr., Prof., Mr., or Ms.): _____

Institution: _____

Address: _____

Country: _____

Tel.: _____ Fax: _____

E-Mail: _____

I intend to participate in the workshop _____ Yes

I wish to present a poster _____ Yes _____ No

Proposed abstract title: _____

Session focus (check all that apply):

Microwave _____ Far IR _____ Mid and Near IR _____ UV/Visible _____

Aerosols _____ Laboratory _____ Field Measurements _____